UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,010	05/08/2000	FREDRIK WINQUIST	BERGLUNDSP9	4135

7590 08/13/2003

HAYES SOLOWAY HENNESSEY
GROSSMAN & HAGE
175 CANAL STREET
MANCHESTER, NH 03101

EXAMINER	
HANDY, DWAYNE K	

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 08/13/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/508,010	Applicant(s) Winquist et al.
	Examiner Dwayne K. Handy	Art Unit 1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *May 20, 2003* .

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *39-42 and 44-53* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *39-42 and 44-53* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
18) ☐ Interview Summary (PTO-413) Paper No(s). _____
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other:

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 39-42 and 44-53 are rejected 35 U.S.C. 103(a) as being unpatentable over Lewandowski et al. (U.S. Pat. No. 4,897,162) in view of Lewis et al. (5, 571,401). This rejection was previously applied to claims 39-52 in the previous action. This rejection is repeated below for applicant's convenience.

Lewandowski teaches a glucose sensing apparatus and methods for operating the device. The basic method involves providing voltage signals at varying levels between a reference electrode (10) and a sensing electrode (12) (column 4, also Figure 12). In addition to voltage, Lewandowski also recites using measurements of amplitude, frequency and varying wave shapes in claim 1. Varying waveshapes is also mentioned in column 5, lines 38-55. The use of superimposing (overlapping) pulses and cyclic switching, as well as a pulse frequency of 200 hertz is discussed in column , lines 3-57 and column 7, lines 16-54. Lewandowski specifically recites applying voltage to electrodes and recording current in column 4, lines 8-30. Lewandowski does not teach a plurality of working electrodes coated with different materials, treating the transient by derivative of integration methods, or switching the current or voltage generator between different electrodes.

Lewis et al. (5,571,401) teaches a sensor array for detecting analytes in fluids. Lewis teaches a sensor array which detects fluids based on resistance measurements from an array of electrodes. The measurements are represented in two dimensional form (Figure 3) and even three dimensional form in certain embodiments. Lewis also teaches that these electrodes work together in an array to provide the measurements (col. 2). Lewis describes measuring temporal response and data manipulation in col. 7, lines 39-57. It would have been obvious to one of ordinary skill in the art to add the teachings of Lewis to the method/device of Lewandowski. The multiple electrodes and subsequent response pattern produced by Lewis allows for a more distinct measurement of an analyte. This would be advantageous when measuring a sample.

Response to Arguments

4. Applicant's arguments filed 5/20/03 have been fully considered but they are not persuasive. Applicant has argued that the instant method is distinguished over the prior art since Lewandowski does not teach a plurality of coated electrodes and Lewis does not teach the reading of entire curves of responses or use multivariate methods. As to the contention that Lewandowski does not teach a plurality of coated electrodes, the Examiner believes this

limitation is provided by the addition of Lewis. Lewis teaches a plurality of coated electrodes that are coated with a variety of different polymers in order to produce differing responses from each electrode (column 4, Table 2). As for applicant's argument that Lewis does not teach the use of multivariate methods, the Examiner disagrees. A multivariate method is simply a method in which several variables are taken into account in the analysis. Lewis teaches an embodiment in column 7 in which the resistance response of each sensor is measured as a function of time. Also, the sensors each provide a different response which is represented in plotted diagrams of both 2 and 3 dimensions. These features meet the limitation of multivariate methods since they all use more than one variable.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (703)-305-0211. The examiner can normally be reached on Monday-Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached on (703)-308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703)-772-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0661.

Jill Warden
Supervisory Patent Examiner
Technology Center 1700

dkh

August 11, 2003